

## CLAIMS:

1 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle comprising a first guide and slider assembly (4) provided in the frame 5 (2) of the door (1) of the vehicle and a second guide and slider assembly (5) provided in the track (6) of the window lift, both having sliders (7) fixed to the window pane (3), means for driving said slider assemblies (4, 5), the window lift assembly being fitted in the lock of the motor vehicle 10 with the track (6) secure thereto, the design of said window lift assembly depending on the distance ( $Y_1$ ) between two points of contact (P) of the slider in said track (6) measured on a line parallel to said track (6); on the distance ( $Y_2$ ) from the upper edge (11) of the pane (3) to 15 the fastening point (12) of the slider (7) of said first assembly (4) in the pane (3); the distance ( $X_1$ ) from an end of the track (6) to the points of contact (P); the horizontal distance ( $X_2$ ) between two points of contact (P); the height (H) from the lower portion (14) of the door of 20 the vehicle to the belt line (13); and the height (h) of the window of the vehicle, characterized in that said distance ( $Y_1$ ) has its maximum value possible for generating the maximum resistive torque to withstand the weight of the pane (3), at the same time the condition that said value 25 ( $Y_1$ ) is less than (H-h) is met to facilitate assembly of the slider (7) in the door, said distance ( $Y_2$ ) being less than the value (h- $Y_2$ ) as the descent load is less than the ascent torque due to the weight of the pane (3); and the value of the distance ( $X_1$ ) being as high as possible 30 according to the geometry of the door.

2 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that the distance ( $X_2$ ) is less than or equal to the distance ( $X_1$ ) in case the value of 35 ( $Y_1$ ) is very low due to space, and to the geometry of the

door.

3 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that the distance ( $X_1$ ) has a 5 value ranging from 100 to 150 mm, depending on the space available for assembly.

4 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that said window lift driving 10 means are mechanically linked to a lock assembly of the vehicle allowing any mechanical driving means of said lock assembly, or any mechanisms associated therewith, to be suppressed.

5 - Improved window lift assembly adapted for 15 being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that the slider fitted in the guide of the frame (2) of the door provides only a single point of contact inside of said guide allowing rotation of the slider, so that the value of distance ( $Y_1$ ) is as high 20 as possible, the value of ( $X_1$ ) being as low as possible, and ( $Y_2$ ) depending of the load.

6 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that the slider fitted in the 25 guide of the frame (2) of the door of the vehicle is completely guided without possibility of rotation, distance ( $Y_1$ ) being as low as possible to avoid hyperstability and to prevent the system from being blocked, and the value ( $X_1$ ) being as low as possible to 30 avoid any possible blocking torques.

7 - Improved window lift assembly adapted for being fitted in the lock of a motor vehicle as claimed in claim 1, characterised in that the slider fitted in the guide of the frame (2) of the door of the vehicle has a 35 single point of contact, the pane (3) completely resting

on the frame (2), so that the value taken by the design variables ( $Y_1$ ,  $Y_2$ ,  $X_1$ ) depends on the geometry and on the loads of the assembly, value ( $Y_1$ ) having to be an average value to avoid any possible plays in the assembly, and  
5 distances ( $Y_2$ ,  $X_2$ ) being proportional to the ascent and descent loads of the pane (3).